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County Borough of Wolverhampton.

ANNUAL REPORT

UPON THE

HEALTH OF WOLVERHAMPTON

FOR THE YEAR 1892.

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STATISTICAL SOCIETY
1 - MAY 95

County Borough of Wolverhampton.

REPORT

UPON THE

HEALTH OF WOLVERHAMPTON,

FOR THE YEAR 1892,

BY

HENRY MALET, B.A., M.D., B.Ch.,

MEDICAL OFFICER OF HEALTH.

* * *

PRINTED BY ORDER OF THE SANITARY COMMITTEE.

MEDICAL OFFICER'S REPORT,

1892.

PREVALENCE AND PREVENTION OF INFECTIOUS DISEASE.

Table 2 is a summary of returns made weekly to Dr. Reid, the County Medical Officer, at his suggestion. The figures are the numbers of cases reported by Medical Men under the Infectious Disease Notification' Act; the crosses represent the degree to which the Diseases heading those columns prevailed, these (especially the last 3 columns) are only rough approximations, as I had no precise information respecting those Diseases.

Table 1 gives the total number of cases about which inquiries and records were made.

As regards preventive measures we only deal at all thoroughly with Scarlet Fever, Small-Pox we have also dealt fully with when present, the amount of attention given to other diseases is given under their detailed headings, it will be seen that it is but slight. We have not at present the means of grappling as vigorously with other Infectious Diseases as some other Authorities do, nor do I think, at present, any very urgent need exists for such measures; of the three diseases which we comparatively neglect; Measles—we could hardly hope to isolate with any degree of completeness; Diphtheria—is so rare, and so ill-defined, that further attention seems hardly necessary, and would be difficult; Typhoid Fever—is of such limited infectiveness, and so non-epidemic with us, and so many of our cases are already dealt with at the General Hospital, that its further isolation does not seem urgent. As regards the last disease, however, it should not be lost sight of that the perfect destruction of the infective material arising from each case is essential in order to limit further extension; and in many cases this cannot be obtained except by removal to hospital; further it will be seen that direct infection has been remarkably common, far more so than ought to be the case, and for this reason no doubt hospital isolation of our cases would have greatly lessened their total number.

During 1892, there has been a considerable increase in Small Pox throughout the Country, and a number of cases have occurred in our neighbourhood, but we still remained free. This disease is apt to show some recrudescence about every ten years (a period probably corresponding to that of the full protective power of vaccination), we had a severe epidemic in 1871-73, a slight recurrence in 1882-84, so that we might expect some number of cases about now; the last actual case known of in the Borough was in 1886.

Measles.—We have had the heaviest returns of cases of Measles since the severe epidemic of 1886; the Quarterly number of cases and deaths since 1884 have been as follows:—

	1884.				1885.				1886.				1887.			
Cases	272,	710,	143,	2;	4,	2,	...,	17;	21,	9,	189,	959;	124,	17,	31,	22:
Deaths	11,	66,	20,	1;	1,	...,	.,	..;	..,	..,	8,	103;	19,	4,	7,	1;

	1888.				1889.				1890.			
Cases	119	149,	166,	435;	150,	228,	78,	141;	68,	45,	139,	230:
Deaths	9,	6,	5	19;	10,	11,	11,	8;	3,	10,	5,	14;

	1891.				1892.			
Cases	73,	4,	11,	275;	501,	415,	82,	33.
Deaths	5,	...,	...,	20;	21,	16,	3,	1.

There has been a slightly increased prevalence of Measles throughout the Country, some of the large towns having suffered severely; our death rate was ·48, that of the 33 towns ·69.

From the above table it will be seen that the epidemic began in the last Quarter of 1891; it then began in the Steelhouse Lane neighbourhood and circled round (as usual from south to east to north to west, against the sun) towards Stafford Road. The First Quarter of this year it extended from Stafford Road through the Whitmore Reans and towards Brickkiln Street, a number of fresh cases also occurring towards Springfields. St. Stephen's Schools were closed for a month on January 20th ; St. Andrew's Infants School on March 2nd ; and St. Mary's Infants' on March 26th ; each for four weeks ; the Red Cross Street Infants' School and St. Joseph's Schools were closed for three weeks on March 26th. During the Second Quarter the progress continued round towards Blakenhall, but the number of cases began to diminish rapidly towards the close of the Quarter. The following Infants' Schools were each closed for four weeks :—Brickkiln Street and Dudley Road on May 2nd, and Willenhall Road on May 9th. During the Third Quarter we remained almost free from Measles until just at its close, when we had a very sudden but rather small outbreak in Causeway Lake. The Schools were closed for four weeks on September 28th ; the outbreak rapidly died out in the fourth Quarter, but it was found necessary to extend the Schools' closure to six weeks, in consequence of some fresh cases occurring in the houses already infected. For the rest of the year we were almost free, a few scattered small groups of cases being all that were heard of. I have this year adopted much more freely the Closure of Schools as a preventive measure. On *a priori* grounds I am not inclined to consider the measure useful in a crowded town district, but it is advised by better authorities. It is very difficult to estimate the effect of such a measure, not knowing how things would have gone on without it ; but the impression left on my mind was in its favour ; I thought the affected districts got clear of Measles more rapidly than formerly. In the last case mentioned above, the small outbreak in Causeway Lake, there seemed every prospect of a severe outbreak, and the schools were very closely crowded ; we had however a very early intimation of the first cases, and the schools were closed with extra promptitude ; the disappearance of the disease was very striking. Of course it may be argued on the other hand that we have had less cases and deaths from 1887—90 without school closure.

Scarlet Fever — Last year there was a moderate prevalence of Scarlet Fever for the first Three Quarters, but during the Fourth Quarter it became very threatening (Quarterly cases were 84, 84, 90, and 161, deaths, 2, 2, 2, 8). At the close of that year the threat of epidemic had ceased, and the type of disease, which had assumed considerable virulence, became again exceedingly mild. This continued until the close of the Third Quarter. and then, as is almost always the case, there was a considerable increase in the number of cases, but the type continued mild (Quarterly cases, 40, 31, 37, 134, deaths, 1, 0, 0, 2). The remission of this disease this year is in every way the most remarkable we have ever had; there was every reason to fear a severe Autumnal onset, as there was a severe epidemic of Scarlet Fever in our neighbourhood, and a great prevalence in several contiguous districts, and in many parts of the country. But the number of cases in the Fourth Quarter was much less than last year, and in the first Three Quarters the numbers were incredibly low. Further the deaths, three in the year, are far the lowest we have ever had, and are an amazing contrast to former returns (see tables 9 and 9a.); the average number of deaths for the ten years immediately preceding (82—91) is 20·5, and for the ten previous years (72—81) 69·4. There is absolutely nothing to account for this extraordinary result but Hospital Isolation; this has been entered into so fully in the last two Annual Reports that it would be superfluous to discuss it again; but the figures this year are so striking that they compel attention.

The following Table gives the particulars as to the Quarterly treatment of the cases in the two Sub-Districts, the foot notes must be attended to in estimating the number of cases left to home care, as the "removals" are only those to the Borough Hospital, and a few cases are still isolated at the General Hospital, some through the preference of their friends, some through being brought up amongst the out-patients in ignorance, and detained in the Hospital. Some cases also occurred in a large Public Institution and could not count as cases in private houses, for the isolation would practically be Hospital.

QUARTERS.			1st	2nd	3rd	4th	Year.
EAST	Total	Cases	20*a*	20	9	27*c*	76
		Deaths ...	1	...	...	1	2
	Removals	Cases ...	16	8	8	21	53
		Deaths ...	...	...	...	...	...
WEST	Total	Cases	20*a*	11	28*b*	107*d*	166
		Deaths ...	...	...	...	1	1
	Removals	Cases .	5	6	16	70	97
		Deaths ...	...	...	...	...	...

a.—One of these cases was taken by friends to the General Hospital.

b.—One of these cases was taken by friends to the General Hospital, and three occurred in a Public Institution.

c.—One of these cases was Nurse in the Borough Hospital (included in the 21 removals), and three were detained at the General Hospital.

d.—One of these cases was detained at the General Hospital, two were sent there by friends, and eleven were in a Public Institution.

It appears that during the First Quarter, of 20 cases in the East only 3 were treated at home, of 20 in the West 14 were treated at home. Second Quarter, of 20 East, 12 were at home (2 very doubtful), of 11 West, 5 were home (1 doubtful). Third Quarter, of 9 East, 1 was home, of 28 West, 8 were home. Fourth Quarter, of 27 East, 3 home, of 107 West, 23 home. The proportion of isolation done is even better shown thus; at the close of the First Quarter there were 12 cases in the Borough Hospital only 1 at home; Second Quarter, 9 in Borough Hospital, 5 at home; Third Quarter, 19 in Borough

Hospital, 4 at home; at the close of the year there were 63 cases in the Borough Hospital, and only 6 at home, 3 of these being in one house, and 1 of the others a very doubtful case.

On the whole, ignorance and negligence were rather less marked than usual, our main trouble was in connection with cases which were either supposed or asserted to be either measles or nothing at all, and in neither case would any doctor be called in; a number of such cases were found by our Inspectors going about, uncared for, and freely peeling. From three such cases in one house in the West Sub-District several cases were infected, one being the only death in that Sub-District during the year. To similar overlooked cases was due the only definite outbreak we had, one in connection with St. Andrew's Schools, and for which these schools were closed for three weeks on November 30th; this outbreak consisted of apparently 39 cases, and was a heavy factor in our Autumnal increase.

Diphtheria.—Our recorded cases are only 16 (see table 1, of the 18 returned in table 2, 1 proved to be Scarlet Fever, and 1 was too doubtful to record) there were 33 last year; our deaths have been only 4 (see tables 5 and 9). In the East, only 3 cases were reported, one was in the First Quarter, no cause was made out; the other two were in the Second Quarter, both were taken to the General Hospital and reported from there, they were both fatal; one of these cases came from premises where there were a foul wet ashpit and closet, a blocked drain in the yard, and a foul accumulation in the cellar; in the other case there was a foul drain in the cellar. The fact that of the three cases reported, two proved fatal, suggests the probability that there were other unknown cases, doubtless it was the severity of the two fatal cases that caused them to be taken to the Hospital, had they been mild they would probably not have had any medical attendance, and this may have been the case with others. Of the 13 cases in the West, in 6 no cause whatever has been made out; one of these six was a child who had been nursed by a girl who was found to have Scarlet Fever. In the other 7 cases the following possible causes existed.

1.—Lived in a cottage on a farm near much liquid manure.

2.—A quantity of ashpit refuse had been tipped by the Corporation at the rear of these premises, there were three other sore throats in the house.

3.—Had been visiting at a house where the w.c. drain was blocked, came home ill.

4.—Sink drained into an untrapped gully.

5.—An untrapped drain in the yard.

6.—Leaking soil pipe with free escape of sewer gas.

7.—A blocked drain had just been opened, several other members of the household had sore throats

There were 5 cases in the Second Quarter, 4 in the Third, and 4 in the Fourth. The same peculiar distribution of the cases amongst medical men that was noticed last year occurred again; of the 13 West cases, 9 were reported by one practitioner, 2 by another, and 1 each by two others.

Typhoid Fever.—We continue to have a steady prevalence of Typhoid Fever; and as usual the great majority of the cases are reported from the West Sub-District; the numbers are slightly below last year's, East 22, West 53; last year's were 34 and 64. The deaths are high, 16; 5 East, 11 West; last year there were 6 and 9. We can trace very few cases to any sufficiently definite cause, but two points were as usual emphasized, the preference for certain localities, and the great frequency with which direct infection apparently occurred.

Amongst the East cases the following were the only noteworthy points.

In four instances the patients had been nursing other Typhoid Fever cases.

There were three pairs of cases; in one of these the first case had been bathing in the canal near where it receives some sewage, but there were very bad drainage defects at the home; in another, directions had been given to bury the discharges from the first case, this was done near the top of a well which was their sole water supply, the second case then occurred.

In one case the illness was attributed to an immersion in the Severn.

Another was associated with very foul midden closets.

Another used pump water, analysis only slightly condemned it.

Amongst the West cases the following occurred :—

A father, much away from home, got Typhoid Fever and was nursed at home, a small cottage ; 3 more cases occurred.

In another instance, 8 cases occurred more or less consecutively in one cottage, no sufficient definite causation was found.

There were three sets of 3 cases each in a house, and three sets of 2 cases each.

As usual in many instances the diagnosis was made so late that the chances of finding the original cause of infection were greatly lessened.

Whooping Cough.—This disease was terribly fatal during the first Two Quarters in both Sub-Districts, (see table 5) rather most in the East where there is a larger child population ; the total number of deaths, 80 (see table 9) is not only more than double the average for the previous ten years but it is the second highest we have recorded, the highest was 96 in 1878.

It is easy to understand why Whooping Cough, once going, should spread freely ; the disease is peculiarly difficult to recognise in the earlier stages, when infection is very active, for as long as three weeks there are frequently only the signs of an ordinary cold, and all this time the patient may be spreading infection ; the fact is that when Whooping Cough is prevalent every catarrh of any severity should be looked upon with suspicion. What we actually experience is that even in pronounced and unmistakable Whooping Cough there is not the slightest care taken by the majority of persons, I have heard the typical cough and vomiting in public conveyances, in crowded public rooms, in the streets, and I have found children coughing and vomiting when sitting on neighbouring door steps. When this state of things exists, especially in connection with a disease in which the paroxysms of cough and the vomiting scatter the infectious expectoration freely about, it is no wonder that the disease is widespread. And this negligence is not due to any ignorance of the disease being infectious, but to an utter indifference as to it ; most of those whom I have spoken to seemed quite taken aback at the idea of their taking any care.

It is more difficult to see why we should have suffered so much more this year than others, it may have been that the type was a particularly fatal one, for we have no records of Whooping Cough, and can make no guess as to whether there were really more cases this year than during other epidemics. Other towns have also suffered severely (see table 10) but only one, Salford, more so than we have. The weekly fatality in each Sub-District is shown in table 4.

Influenza.—A rather mild type of this disease had re-appeared towards the close of 1891, there was apparently a very great prevalence during the first few weeks of this year (see table 2) but the type was mild, and in about five weeks the cases became few in number; the deaths actually referred to it were few, 3 in the East and 5 in the West Sub-District, but a very fatal form of Pneumonia was prevalent at the same time, and continued fatal for many weeks subsequently, and there can be little doubt but that this was consequent on Influenza. There appeared to be a more general appreciation of the infectiousness of this Zymotic, but as a rule precautions were taken too late to be of much use.

Diarrhœa.—This disease was much below the average fatality, indeed it has seldom been so low (see table 9). The weather in the Third Quarter, when the summer epidemic usually prevails was very unfavorable to Diarrhœa, the rainfall being unusually heavy, and there being but little sustained heat (see table 3). The returns made as Diarrhœa do not accurately give the real fatality from this cause, for such returns as Enteritis, Enteric Catarrh, Gastro-enteric Catarrh, especially when affecting young children, might be properly placed under the heading Diarrhœa, or Diarrhœal Diseases, as is done in table 4; this table gives the best idea of the actual prevalence of the disease.

BOROUGH HOSPITAL.

The Borough Hospital has only been used for Scarlet Fever. The total accommodation now provided is as follows, Pavilion A, containing two wards, built for 6 adults each; a well-appointed brick building. Pavilion B, containing two wards built for 8 adults each, and two wards for 1 adult each; this pavilion is a model of its kind, being in every particular beautifully finished and appointed. A wooden annexe containing two wards built for 3 adults each. The above adult accommodation is in accordance with the recognized need in treating severe cases of infectious disease in adults; we have been dealing with children, almost wholly, most of them very young children, and the great majority the very mildest cases; under such circumstances we were, as will be seen, able to greatly exceed the above numbers; and this year I do not think we were at any time really much overcrowded. Besides the above we have an excellent Administrative Block; an Entrance Building containing waiting and discharging rooms, and rooms for some of the staff; and a Laundry and Disinfecting Station, neither quite equal to the demands made upon them.

The Quarterly numbers dealt with have been as follows :—

Quarters.	Remaining in from previous quarter.	Total Admitted.	Total Discharged	Died	Average No. of days in of the cases Admitted.
First ...	53	22	63	...	54·6
Second ...	12	15	18	...	55·7
Third ...	9	25	15	...	53·7
Fourth ...	19	94	50	...	57·2
YEAR ...	53	156	146	...	56·1

leaving 63 cases in at the close of the year, Four of the admissions were from the Tettenhall Urban District; and one from the Cottage Homes, at Wednesfield.

The above are the total admissions; of these probably the following four were errors of diagnosis. Case 87, was in the Borough Hospital with severe Scarlet Fever in 1887; nothing definite, detained for 3 weeks, then discharged there being no peeling. Case 80, nothing definite on admission, 7 days after had Scarlet Fever. Case 140, admitted with a vivid rash on December 9th, not ill and no other signs, no definite peeling, but skin rather branny; on January 21, fresh rash, hardly anything else, but was followed by free peeling all over. Case 91, was admitted on November 6th, rash, no other signs, history of parotid swelling; on November 12th, a distinct, somewhat severe attack of Scarlet Fever; later we heard that her brother had Mumps. The above are an exceedingly small number of inaccuracies out of 156 cases, considering the great difficulty that there is diagnosing some of the milder forms of Scarlet Fever; when a marked case has already occurred in a house there is often too hasty a tendency to diagnose another case, this was probably the cause in Case 87 above whose brother was admitted with severe Scarlet Fever at the same time.

Excluding Case 87 there were 155 cases treated, most of these were very mild cases, but nineteen were of exceptional severity; out of this total not to have lost a single case is matter for congratulation. Amongst the 87 treated outside the Borough Hospital there were 3 deaths.

Complications.—Severe nasal ulceration and discharge occurred in 22 cases. Six cases had troublesome skin eruptions. Suppuration only occurred twice, once in the axilla, once in the scalp, after severe cellulitis. Albuminurea was present in any degree in only two cases. Joint affections occurred rather severely in four cases. Otorrhœa was troublesome in four cases. Very severe ulceration of the tongue occurred once, and of the cheek once. Two cases had iritis, in one there was ulceration of the cornea, in the other very troublesome phlyctenular conjunctivitis.

Other Diseases.—The outbreak of Chicken Pox which had proved so serious at the close of last year extended to three more cases during the First Quarter of this; it then ceased. In the last Quarter a case admitted had exceptionally severe Chicken Pox, it was fortunately recognised at once and isolated; there was no extension. A more serious mischance was case 91 alluded to above, which evidently had been a case of Mumps, this fact was not recognised until after infection had spread, six of the children took it.

Duration of Stay in Hospital.—This has been very long, the average for the year nearly nine days longer than last year's, there are many reasons for this; we had hardly any very short cases, no fatalities. The various complications mentioned above all prolonged the stay; the cases with nasal discharge were all lengthy, 89, 87, 85, 76, 75, and 70 days being the longest; the Otorrhœa and Albuminurea cases were all prolonged; some of the severe cases were very lengthy; the Iritis cases were 92 and 78 days; some of the cases that took Mumps when nearly fit to go out were thereby greatly delayed, 96, 92, and 61 days. But what really contributed more than all other factors put together was the very prolonged peeling which took place in a number of our cases; seven weeks is supposed to be an average duration of peeling, our average was far beyond this, while hardly any cases were clear in a less period, fifty cases, otherwise uncomplicated, had an average peeling duration of nine weeks, six of them being over ten weeks.

We had not during the year a single instance of infection being conveyed by a patient discharged from the Hospital.

Only two cases were attended by their own doctor.

Amount of Work.—During the first half-year the work was very moderate, there being only two very severe cases, and no special anxieties except the continuance of the Chicken Pox from last year, and that very soon ceased. In the Third Quarter there were a fair number of troublesome cases, and four very severe ones, so both work and anxiety were largely increased. The work of the Fourth Quarter far exceeded that of the rest of the year; far more cases, and a far higher proportion of them severe, fourteen being cases of the worst type, and causing great anxiety as well as work; the Mumps complication also increased the responsibility. The greatest number of cases was in the middle of December when for some days we exceeded seventy.

Management.—I can only repeat what I have formerly stated that I have the greatest admiration for the Matron's management of the Institution and patients. The above splendid results are undoubtedly due in the greater part to Mrs. Chambers' excellent care and supervision.

Deficiency.—I must again repeat that we are very inadequately supplied with the means of treating separate diseases, or of quarantining doubtful cases. This need may make itself very severely felt if we have Small Pox simultaneously with any pressure from Scarlet Fever. Our Disinfecting Stove cannot effectually meet the demands made upon it when there is any exceptional prevalence of infectious disease. The Laundry is small for the Hospital as now grown. A Mortuary is about to be erected, and is needed.

Disinfection.—The Quarterly number of articles stoved have been 1,558, 668, 678, 1,800; 4,704 in the year. Rooms in 146 houses, 1 church, 5 schools, 2 vehicles, and 1 canal boat have been disinfected with sulphur fumes.

METEOROLOGY.

(See Table 3.)

First Quarter.—The weather during the First Quarter was very severe and variable. During the first fortnight there was constant severe frost, temperature falling as low as 14·2 degs., mean temperature for the fortnight being 28·6 degs.; there was much snow; harsh N.W. winds. Third week, much rain and fog, S.E. winds, less frost, very damp. From January 23rd to February 13th there was much milder and brighter weather; mean temp. above 40 deg.; slight frosts; moderate showers and snow. During the week after February

13th the cold became again intense; severe frosts, temp down to 10·3 degs.; mean for the week 26·8 degs., N.E. winds; snow storms. Next week (ending February 27th) was slightly less cold, but very damp and foggy. During the next fortnight (ending March 12th) there was constant, rather severe frost; slight snow; rather dull; wind varying from N.E. to N.W. During the last three weeks we had very severe frosts, but the day temp. ranged very high (lowest temp. 20·0 degs., highest 67·9 degs.), occasional snow and showers, some fog.

Of thirty-one Meteorological stations throughout the country the mean temperature (35·1) at the Wrottesley Observatory, near Wolverhampton, was the lowest; and our mean temperature at the Park was even lower than this, being only 34·6 degs.

The Rainfall was very low, being only 4·49 inches.

The Humidity as a rule was high, and the 1st, 3rd, 6th, 7th, 8th, and 12th weeks were excessively damp.

The Barometer was rather variable, the mean weekly reading was rather low during the first fortnight, rose slowly in the third week, very high in the fourth and sixth, low in the fifth, seventh, and eighth, high in the ninth and tenth, rather low in the eleventh; high in the twelfth; very high in the thirteenth.

Second Quarter. –The weather during the Second Quarter was, for the season, cold, but neither the temperature nor the damp were such as to materially affect health. There were occasional frosts at night, sometimes rather severe, as late as the first week in May; frequent snow showers, and some snow storms. After this the temperature kept moderate, the most unpleasant feature being the marked difference between the cool air and the heat of the sun, which, during the frequent bright periods, was very great.

The Rainfall was heavy, 7·64 inches. This mostly fell in frequent moderate showers, there were thunderstorms on the 27th and 31st of May, and the 28th of June; the latter was phenomenal, over two and a half inches of rain fell between 7-30 p.m. and 5 a.m.

on the following morning, and nearly all of this fell before midnight; in consequence of so heavy and sudden a rainfall there was flooding in almost all parts of the Borough; and bad overflowing of the sewers in the lower districts.

The Humidity was very low, the air being usually exceptionally dry.

The Barometer was high, variations as a rule very slight.

Third Quarter.—During the Third Quarter there was very little, and no continuous, real summer weather; the maximum temperature was very moderate, once reaching 82°, but seldom much exceeding 70°; the minimum temperature was as a rule very low (there was a slight frost on August 10th); the mean temperature for the Quarter was only 53·9. The ground temperature was also low.

The Rainfall was heavy, 7·39 inches. It mostly fell in moderate showers, occurring rather regularly. Occasionally there was very heavy rain, and one severe thunder storm.

The Humidity was high, dull damp days being frequent.

The Barometer was moderately high, variations being considerable.

This weather, though very unseasonable, was not on the whole, unhealthy for a town; the rain was cleansing; and the absence of high temperature would check decomposition and so lessen air impurity; and doubtless in other ways be unfavourable to Summer Diarrhœa. The extra damp and wet would be rather bad for chest affections, but the cold was not so severe as to materially affect these.

Fourth Quarter.—During the Fourth Quarter the weather was, on the whole, fairly good for the season; there was a fortnight's rather severe frost the end of October and beginning of November; there were severe frosts the second week in December; and very intense continuous cold the last nine days of the Quarter, during the last week the lowest temperature was 10°·7, the mean for the week being 24°·3, the maximum hardly rising above freezing point (32°). During the rest of the Quarter the temperature was very moderate, and frequently temperate, sudden changes were rare.

The Rainfall has been low, 6·89 inches; there were rather heavy rains the first fortnight, and much snow and rain during the week ending December 10th.

The Humidity was high, 95; dull damp days were frequent, and there was a moderate amount of fog.

The Barometer was rather low; changes were moderate and gradual.

The total Rainfall for the year was 26·41 inches.

Explanatory Remarks on the Tables

The Tables have been slightly altered this year, some new being inserted, some old altered, and some omitted.

The Returns made by the Registrar for the East Sub-District include all deaths occurring in the General Hospital and Workhouse; many of these are from outside the Borough, others from the West Sub-District, and others are returned as "no home"; the particulars of these cases are all entered in Table 7. In all the Tables for the Sub-Districts the deaths are referred to where they belong, and in all the Tables only cases belonging to the Borough are entered for the last seven years, except in Table 9, where the Borough totals include "no homes," in order to compare with former years; in Table 8 the comparison between the Sub-Districts in all years before 1884 is misleading, as the East deaths include many really belonging to the West; the second row of figures in each year since 1884 are the corrected returns, the first row (given to compare with former years) are the returns as sent in by the Registrars.

Table 10 gives our comparison with the other 32 great towns. The third column in this table does not give the actual death rates, but the rates corrected for the age distribution of the populations. The death rate varies in the different age decades, for instance is very high under 5 years, and over 60 years, comparatively low between 20 years and 40 years. Thus a district whose population consisted of persons under 5 years and over 60, with a death rate of 40, might be far healthier (as far as death rate is an index of health) than a district whose population was between 20 years and 40, with a death rate of 10. In the third column in table 10 the rates are what they would have been had the age distribution in each town been the same as in England and Wales, and are therefore a much more accurate comparison than the actual death rates; the mortality figures in the fourth column are based on the corrected death rates.

VITAL STATISTICS.

Comparing our Borough with the thirty-three great towns (see table 10) we see that our corrected death rate, 22·54, is rather above their average rate, 22·35. We stand twenty-fifth, our rate being almost identical with that of Birmingham, which is twenty-fourth. The death rate of England and Wales less the thirty-three towns is only 17·81, but even this is far higher in proportion to the town rate than it usually is; Influenza, one of the serious factors in the year's death returns, having, most singularly, been specially prevalent and fatal in the rural districts. Our Zymotic death rate, 2·34, is below the average, 2·64; we stand eighteenth from the lowest. Measles death rate 0·48 below average 0·69, fifteenth. Scarlet Fever death rate, 0·04, far below the average, 0·25, and much the lowest of the towns; this, for the Zymotic we isolate, is very gratifying. Diphtheria death rate, 0·05, much below the average, 0·27, and second lowest. Whooping Cough death rate, 0·94, far above average, 0·57, and second highest. Our number of Deaths of children under one year old per thousand Births is high, 172, average 164, we stand twenty-first from the lowest. With the one exception of Whooping Cough, we compare in the Zymotic rates very favourably; our total death rate, and our proportion of infant deaths is unfavourable as compared with the other towns.

Turning to table 9 we see that as compared with the previous ten years' average our death rate is rather high although a little below that average; the average ten years' rate is however a high one owing to the heavy mortality in the years '82, (Measles, Scarlet Fever, Whooping Cough and Diarrhœa, all epidemic), '84 (Measles and Diarrhœa, severely epidemic), '86 (Measles and Diarrhœa, very severely epidemic), and '90 and above all '91, ('90, Measles, Whooping Cough, and Influenza, and in consequence terribly high Respiratory deaths, '91, the same as '90, with a severe Diarrhœa epidemic). The principal factors in this year's fatality appear in table 9, and are seen at once by comparison with the ten years' averages in the last column; Measles and Whooping Cough have already been dwelt on, in spite of their prevalence the Zymotic death rate is below the average; this is due to the low return from Diarrhœa. The heaviest item in the returns is the fatality from Respiratory Diseases which is far above the average. Table 9a brings us nearer, showing the high fatality is due altogether to the First Quarter, when the Whooping Cough was worst, the Respiratory deaths fearfully high, and the deaths of children under 5 years, fearfully high. The last column of table 3 shows that the high death rate ran on to near the close of April. Table 8 shows that the West death rate was very seldom as low as it was this year, but that the East death rate is very high, the difference in the rates 6·1 being enormous, and only equalled once (in 1887). This difference in the death rates of the Sub-Districts is very serious; it is no doubt partially due to the different ages of the populations of the two, there being a far greater proportion of children in the East; but this would be only a small factor. Table 7 shows the excess is mainly in infants (64, col. *c.*) and young children (55, col. *d.*), but that of persons over 60 years more have died in the West; and col. 18 shows that Respiratory Diseases are the main causes of these excesses. Table 5 gives the Quarterly details. We see that the

First Quarter had a terribly high death rate in the West, but the East was one-fourth as high again. In the West, Respiratory Diseases were very high, and Whooping Cough, and there were some Measles and Influenza deaths ; all ages were badly affected, but most over 60 years, children being also very high. In the East, Respiratory Diseases were terribly fatal, the deaths being one and a half times the West ; Whooping Cough was very high ; there were many deaths from Measles and some from Influenza ; all ages were badly affected, but children, and especially between 1 and 5 years, the most so ; deaths over 60 were very high, but not so high as the West. The above is a terrible mortality, but it is made worse by the fact that the preceding Quarter, the last of 1891, was almost equally fatal. The explanation is simply this, we had a peculiarly unfortunate combination of epidemics, Measles, Whooping Cough and Influenza, occurring at a season when exceptionally severe weather rendered the usual complications of all these Zymotics exceptionally fatal. The East predominance is simply what we have always experienced in similar weather, its aspect and poverty rendering it especially liable to bad weather effects. The peculiarity as regards the age deaths in the Sub-Districts is due to the respective age distribution, there being a majority of old persons in the West, of children in the East.

The Second Quarter was also rather a fatal one, for the season, it usually being the least fatal of the year ; this was due to the continuance of the above unfavorable conditions during the first few weeks of the Quarter ; Measles and Whooping Cough lasted most of the Quarter, but the weather was mild and their mortality became less. The Third Quarter was one of very low mortality ; Respiratory deaths were rather high for that Quarter ; but there was a most exceptional absence of Summer Diarrhœa, this and the lack of any other Zymotic, caused the low fatality. As already mentioned in the remarks on meteorology the weather this Quarter was really in many particulars very favorable to a town, the frequent rain cleansing the courts, &c., clearing away dust, and flushing drains : and the low temperature being unfavorable to germ development. It is disheartening to see that in spite of all this the death rate in the East for that Quarter was so high as 18·8. It is a point of interest in connection with this Quarter that the deaths between 5 and 60 years of age are the exact average of the preceding ten corresponding Quarters, the reduction being altogether below 5 years and over 60 years.

The Fourth Quarter was again a very favorable one as to the Borough, the death rate 17·9 being the lowest recorded for that Quarter. As in the previous Quarter all Zymotics were at a minimum, and Respiratory deaths continued very low, the last item was the main element in lowering the rate, as this Quarter is usual a bad one for chest affections. The rate of 15·6 in the West leaves little to be desired, but, as before, 20·5 is comparatively a very high rate for the East. The difference is mainly due to the excess in the Infant deaths (under 1 year) in the East; these were partly due to Respiratory, partly to constitutional diseases.

SANITARY CONDITION OF THE BOROUGH.

During the year one decided advance has been made, the adoption of waste-water closets instead of pan-closets in many instances where the latter would formerly have been used. Last year there was great fear that the improved system would be barred by a charge being made, that idea has wisely been given up, and we have already many of the waste-water closets in use; they appear to give complete satisfaction; and they are a great advance on the pan-closets which are apt to be offensive in themselves, and over the removal of which it seems impossible to exercise the supervision necessary. It must however be allowed that a good deal of the complaints made against the pans are in consequence of gross abuse of them by tenants; instead of keeping the contents as dry as possible, and using ashes in them to absorb the moisture, in too many instances they are used as receptacles for liquid slops, and are thus rendered needlessly offensive, over-filled, and their decent removal rendered impossible.

I wish we had made equal advance as regards our disposal of ashpit refuse. It is a considerable time since the question of a Destructor for this purpose was raised by the most serious complaints as to the improper tipping of this refuse in the Borough; and in consequence of which I drew up a summary of the experiences of other towns on the subject. The matter is under consideration, which will I trust soon bring about a practical result; I much deplore that it has not done so sooner, for the question is one of great gravity and urgency. Very nearly the whole endeavour of town sanitation is to reduce the impurity of the air to a minimum; the air in a town is lacking in the active form of oxygen, is loaded with gases from decomposing animal and vegetable matter, and exhalations from human beings and other animals; it teems also with organic and mineral dust, the organic consisting largely of living germs. One large factor in causing this defilement is ashpit refuse, containing as it does much vegetable and animal matter; were all such refuse removed at regular short intervals, say weekly, and burnt, the purity of the atmosphere would be much increased. We certainly have greatly improved in the methods of removal, and the gradual doing away with the old-fashioned large ashpits, and the substitution of the tubs, with weekly removals, in many cases, is a great advance. But my criticism is of the disposal of this refuse. I can really find no words strong enough to condemn the storing of masses of it in disused clay pits about the Borough, such as has been done in the past. From such receptacles foul gases of decomposition will be quietly but constantly escaping into the air, and defiling it for years to come. We have now streets of new, and otherwise very excellent houses, being built immediately adjacent to land filled up with ashpit refuse.

In matters of detail the condition of the Borough generally keep improving, but in the older portions of course the reverse is the case in many particulars; houses become more ruinous, drains, paving, and closets get out of order; the people keep dirty in their habits and need continual looking after; pigs, fowls, &c., are kept in improper places, when removed under one tenant will be kept again by the next. All of this calls for continual supervision, and this supervision is, I believe, better exercised and with better result than in the past. The work done in this department is fully given in the Annual Report of the Sanitary Committee.

Unwholesome Food.—Two cows, three calves, eighteen sheep, nine pigs, two rabbits, thirty-five pounds of sausages, 5,200 eggs, and 1¼ cwt. of cucumbers were condemned and destroyed as unfit for food; notice of these was given.

STATISTICAL SUMMARY, 1892.

	EAST SUB-DISTRICT.		WEST SUB-DISTRICT.		BOROUGH.	
Area—Acres	828		2,697		3,525	
Population*	39,093		44,460		83,521	
Density—No. of persons per acre	47·2		16·4		23·6	
Inhabited Houses	7,627		8,812		16,439	
Rateable Value—Total exclusive of Government Property					£276,552 10s. 0d.	
Marriages					No. 785	Rate 9·4
	No.	Rate.	No.	Rate	No.	Rate.
Births	1,493	38·3	1,312	29·6	2,805	33·6
Deaths	924	23·7	781	17·6	1,705	20·4
Zymotic Deaths	125	3·2	95	2·1	220	2·6
Infantile Mortality Deaths under 1 year per 1000 births	182		159		171	

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* Estimated on unrevised census returns, the Borough is not quite the sum of the Sub-Districts being estimated separately.

Index of Tables.

No. 1—Cases of Measles, Scarlet Fever, Diphtheria, and Typhoid Fever recorded during the year 1892.

,, 2—Weekly Returns under the Infectious Disease Notification Act and prevalence of some other Diseases.

,, 3—Weekly Meteorological Returns and Death Rate.

,, 4—Weekly Returns of Deaths in the Sub-Districts.

,, 5—Quarterly Births and Deaths in the Sub-Districts and Borough.

,, 6—Deaths in the Sub-Districts during the year 1892, classified according to Ages and Diseases.

,, 7—Deaths during the year 1892, classified according to Diseases, Ages, and Localities, and the proportion of Deaths which occurred in Public Institutions.

,, 8—Deaths and Death Rates and Populations of the Sub-Districts and Borough for the past 20 years.

,, 9—Eleven Years Annual Returns of Deaths from various Diseases and at various Ages, and Death-Rates, and Births and Birth-Rates in the Borough.

,, 9a—Eleven Years Quarterly Ditto.

,, 10—Various Death-Rates &c. in the 33 great towns during the year 1892. (*From the Registrar General's Annual Summary*).

(*See also Explanatory Remarks on the Tables on pages 18—19*).

TABLE No. 1.

Cases of Infectious Disease heard of in 1892.

		East Sub-District, Population 39,093.					West Sub-District, Population 44,460.					Borough, Population 83,521.					Totals.			Rate per 10,000 of Population.		
		1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Year	East Sub-District	West Sub-District	Borough	East Sub-District	West Sub-District	Borough
Measles ...	Under 5 years ...	126	104	33	22	285	164	143	23	3	333	290	247	56	25	618	464	567	1031	118·6	127·5	123·4
	5 yrs. & upwards	84	74	14	7	179	127	94	12	1	234	211	168	26	8	413						
Scarlet Fever	Under 5 years ...	7	7	1	6	21	3	2	11	27	43	10	9	12	33	64	76	166	242	19·4	37·3	28·9
	5 yrs. & upwards	13	13	8	21	55	17	9	17	80	123	30	22	25	101	178						
Diphtheria ...	Under 5 years ...	...	1	...	...	1	...	2	1	...	3	...	3	1	...	4	3	13	16	0·7	2·9	1·9
	5 yrs. & upwards	1	1	...	...	2	...	3	3	4	10	1	4	3	4	12						
Typhoid Fever	Under 5 years ...	...	...	...	...	...	1	2	1	...	4	1	2	1	...	4	22	53	75	5·6	11·9	8·9
	5 yrs. & upwards	3	5	10	4	22	16	16	9	8	49	19	21	19	12	71						

TABLE No. 2.

WEEKLY RETURNS under the Infectious Diseases Notification Act, and prevalence of certain other diseases.

A few cases x   Prevalent xx   Very Prevalent xxx

1892 Week ending		Scarlet Fever	Diphtheria	Typhoid Fever	Puerperal Fever	Erysipelas	Measles	Whooping Cough	Pneumonia	Influenza
January	9th...	5	...	...	...	1	xx	xx	xx	xxx
,,	16th ..	2	..	...	...	...	x	xx	xx	xxx
,,	23rd..	3	...	...	...	4	xx	xx	xxx	xxx
,,	30th .	4	1	...	...	2	xx	xx	xxx	xxx
February	6th .	8	...	3	...	...	x	x	xx	xx
,,	13th .	3	...	1	...	...	xx	xx	xx	x
,,	20th...	1	...	1	...	...	xx	xxx	x	x
,,	27th...	4	...	2	...	...	xx	xx	x	x
March	5th...	4	...	1	...	2	xxx	xxx	x	x
,,	12th...	3	...	...	...	...	xx	xxx	x	x
,,	19th...	3	...	2	..	..	xx	xx	x	...
,,	26th...	4	...	2	...	...	xxx	xxx	...	...
April	2nd...	...	...	6	...	1	xx	xx	x	...
,,	9th...	5	2	3	...	...	xx	xx	x	...
,,	16th...	2	...	3	...	1	xx	xxx	x	...
,,	23rd...	...	...	1	...	...	xx	xx	x	...
,,	30th...	3	...	1	...	1	xx	xxx	x	...
May	7th...	1	...	1	...	2	xx	xxx	x	...
,,	14th...	4	...	1	...	1	xx	xxx	x	...
,,	21st...	3	1	2	...	1	xx	xxx	x	...
,,	28th...	2	2	...	...	1	xx	xxx	x	...
June	4th...	2	...	3	...	...	xx	xxx	x	x
,,	11th..	1	...	3	...	2	xx	xx	x	...
,,	18th...	1	3	3	...	..	xx	xx	x	...
,,	25th .	1	...	2	...	1	xx	x	x	...
July	2nd ..	3	...	3	...	1	xx	x	x	...
,,	9th .	1	2	1	2	...	xx	x	x	...
,,	16th..	...	...	3	...	2	x	x	x	...
,,	23rd..	2	...	..	...	2	x	x	x	...
,,	30th...	2	1	4	..	3	x	...	...	..
August	6th	4	...	1	...	5	x	x	x	...
,,	13th...	5	...	...	...	1	x	x	x	...
,,	20th...	1	...	1	1	1	x	x	x	...
,,	27th...	3	...	3	...	2	x	x	x	...
September	3rd...	...	...	...	1	...	x	x	x	...
,,	10th...	3	1	1	...	...	x	x	x	...
,,	17th...	2	...	3	...	1	...	...	x	..
,,	24th...	11	...	4	...	3	x	x	x	...
October	1st ..	7	...	...	...	6	xx	x	x	...
,,	8th .	8	1	2	...	3	xx	x	x	...
,,	15th...	17	...	1	...	2	x	x	x	...
,,	22nd...	10	...	...	...	2	x	x	x	.
,,	29th...	4	...	...	...	4	x	x	...	...
November	5th..	9	...	...	...	2	x	x	x	...
,,	12th..	11	1	4	...	...	x	x	x	...
,,	19th..	11	1	1	...	1	x	x	x	...
,,	26th...	16	...	...	...	3	x	x	x	...
December	3rd...	10	...	...	...	...	x	x	x	...
,,	10th..	15	...	...	1	2	...	...	x	...
,,	17th...	7	...	4	...	1	...	...	x	...
,,	24th...	6	1	2	...	...	x	...	x	x
,,	31st ..	6	1	...	...	...	...	...	x	...
YEAR	...	243	18	79	5	66				

Tables 1 and 2 do not tally; 1 including many cases not reported by doctors, and 2 including some cases which ultimately proved incorrect.

TABLE 3,

Weekly Meteorological Report, from observations taken at 9 a.m. daily.

Week ending	Barometer Corrected		Humidity.	Temperature.					Rain	Wind.		Death Rate per 1000 per annum
	Mean	Range		Max.	Min.	Mean	Earth.			Prevailing Directions.	Total in Week	
							1ft.	4ft.				
1892	in.	in.	0-100	°	°	°	°	°	in.		Mls.	
January 9th..	29·659	·711	93	41·5	14·2	29·7	36·7	43·2	·43	SW, NW, NW	1500	31·2
,, 16th .	29·669	·460	88	35·3	15·4	27·6	35·7	42·4	·41	N, NW, SE	1125	46·2
,, 23rd..	29·785	·409	98	45·0	26·1	34·4	36·1	41·7	1·04	SE, SE, SW	1214	38·7
,, 30th..	30·156	·396	86	51·5	30·4	41·5	38·9	41·4	·15	SW, W, W	1996	27·4
February 6th..	29·575	·816	88	50·0	29 9	39·8	40·1	42·1	·39	W	2128	26·8
,, 13th	30·203	·854	90	54·0	35·1	42·1	41·5	42·5	·19	W, NW	1664	21·8
,, 20th..	29·556	·921	93	42·6	10·3	26·8	38·5	42·9	·70	SW N, E	1730	15·6
,, 27th..	29·664	·773	95	37·9	28·3	34·0	38·0	42·0	·24	SE	1490	23·1
March 5th..	30·114	·471	84	38·2	22·9	30·3	38·0	41·8	·05	NE	1451	25·6
,, 12th	29·739	·920	86	37·8	19·4	28·4	36·1	41·3	·31	SE, NW	1264	28·1
,, 19th	29·799	·877	82	60·0	21·5	36·4	37·8	40 7	·42	NW, S, SE	1603	30·6
,, 26th..	30·213	·832	90	50 7	26·4	38·2	40·7	41·3	·08	N NE	767	23·7
April 2nd	30 294	·837	76	67·9	20·0	38·4	40·1	42 0	·08	NE, N	865	24·3
,, 9th	30·017	·315	73	68 0	31·6	49 8	44·5	42·5	—	NE, E	1487	25·6
,, 16th	29·814	·344	78	64·7	22·3	37·1	44·6	44·0	·42	E, NE	1072	16·8
,, 23rd..	30·141	·658	79	64·0	22·8	42·1	44·6	44·1	·29	N, NW, SW	1390	25·6
,, 30th	29 987	·631	82	58·3	29·9	41·9	47·3	45·0	·46	N	1535	19·9
May 7th..	29 985	·375	77	61·7	26·1	40·9	46·4	45·5	·68	NE	1679	18·1
,, 14th..	30·194	·441	75	67·2	34·4	50·6	50·1	45·9	·13	W, E	1234	26·8
,, 21st..	29·972	·413	78	61·7	38·4	49·1	51·2	47·1	·27	W, N	2111	19·9
,, 28th	29·791	·295	83	77 8	42·5	57·6	54·2	48·0	·69	S, SW, E	1577	24·9
June 4th..	29 827	·463	76	75·3	41·4	55·4	56·8	49·4	1·03	S, W	1898	16·2
,, 11th..	30·063	·675	78	80·1	46·0	59·3	59·1	50·7	·47	N, SE, S	1019	15·6
,, 18th..	30 001	·270	80	62·0	33·0	46·5	57·4	52·0	·07	NE, N, NW	1210	16 8
,, 25th	29 822	·301	78	71·0	40·4	54·1	58.0	52·2	·52	W, SW	1079	11·2
July 2nd..	30 079	·363	79	77·6	42·0	57·7	59·0	52.7	2·61	SW, NE, SW	134	19·9
,, 9th..	29·813	·520	75	82·0	46 1	56·4	59·7	53·3	·49	W	1915	19·3
,, 16th..	29·845	·369	92	69·3	45·1	53·0	57·9	53·7	·79	E, SE	1434	16·2
,, 23rd .	30·043	·439	85	70·8	41·8	52 5	57·1	53·3	·66	SW, N	1173	15·6
,, 30th..	30·218	·145	83	68·3	40·0	54·1	59·8	53·7	—	E, NE	1238	18 7
August 6th	30·022	·246	85	68 4	40·3	54·1	59·6	54·2	·34	NW	1145	8·7
,, 13th..	29 975	·476	83	73 0	34·4	54·6	59·1	54·7	·42	SW, NE, S	1290	11·8
,, 20th..	29 852	·362	81	74·2	41·2	58·1	59·8	54·9	·12	SW, NW	1250	18·7
,, 27th..	29·871	·406	82	75·2	49·2	59·1	60·9	55·3	·57	SW, NW	864	20·6
September 3rd..	29·611	·366	91	67·3	43·0	54·3	58·7	55·3	1·52	S SW, NW	1817	18·7
,, 10th..	30·092	·351	87	67·0	39·5	50·8	56·8	55·1	·19	SW	850	15·6
,, 17th..	29·937	·496	87	66 3	38·1	53·9	56·8	54·7	·03	SW, S, NW	1387	15·6
,, 24th..	30·012	·379	92	62·0	35·0	51·2	55·0	54·2	1 21	NW, NE	1448	12·4
October 1st..	29·650	·584	88	66·8	38·0	49·6	54·0	53·8	1·05	SW, SW, S	1454	19·3
,, 8th..	29·475	·322	93	56·0	34·2	44·4	50·3	53·0	1·50	SW, NW	1079	17·4
,, 15th..	29·812	·422	95	53 0	32·9	44·4	49·2	51·9	1·01	NW, NE	1501	16·8
,, 22nd..	29·967	·625	93	51·0	25·2	38·9	45·9	50·8	·24	N, W	1176	17·4
,, 29th	29·587	·893	91	57·3	21·0	39·9	43·9	49·3	·44	NW. SE, SW	1631	14·9
November 5th..	29·740	·309	95	56·1	24·7	41·1	44·8	48·7	·49	N, S, SW	1153	25·6
,, 12th	30 078	·410	94	54·3	30·7	43 6	45·2	48·3	·28	SW, SE	982	13·1
,, 19th..	29·784	·412	96	52·9	29 9	42·7	46·4	48·3	·66	S, SW	1203	11·2
,, 26th..	30·177	·371	96	46 0	31·0	39·1	43·6	48·0	·33	SE	1328	19·3
December 3rd	30·064	·706	96	53·1	23·0	39·2	42·8	47·3	·47	NW, SW	1615	14·3
,, 10th..	29·859	·680	88	39·4	17·3	29·8	38·4	46·4	1·32	NW	1325	17·4
,, 17th..	29·867	·848	93	53·1	24·2	40·3	38·8	45·0	·15	SW, NW	1614	24·3
,, 24th	30·059	·145	87	51·1	24·2	38·7	41·2	44 7	—	SW, SE	1228	17·4
,, 31st.	30·028	·448	85	34·6	10·7	24·3	35·0	44·2	—	NE, SE	740	23·1

TABLE No. 4—Weekly Returns of Deaths in the Sub-Districts

	Week ending		January				February.				March				April					May				June				July					August				September				October					November				December					1892
			9	16	23	30	6	13	20	27	5	12	19	26	2	9	16	23	30	7	14	21	28	4	11	18	25	2	9	16	23	30	6	13	20	27	3	10	17	24	1	8	15	22	29	5	12	19	26	3	10	17	24	31	Totals
EAST SUB-DISTRICT	Measles	Under 5 yrs.	1	...	...	2	1	...	...	1	...	1	2	1	1	2	...	1	...	...	...	1	1	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	17
		5 yrs. & upwds.	...	...	...	...	...	...	1	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	4
	Scarlet Fever	Under 5 yrs.	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
		5 yrs. & upwds.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
	Whooping Cough	Uuder 5 yrs.	...	3	...	2	1	2	...	3	3	5	4	1	3	4	2	...	1	1	...	...	3	...	1	2	1	1	...	2	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	47
		5 yrs. & upwds.	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
	Diphtheria	Under 5 yrs.	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
		5 yrs. & upwds.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Typhoid Fever	Under 5 yrs.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		5 yrs. & upwds.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5
	Diarrhœal Diseases	Under 5 yrs.	...	...	...	...	...	...	...	2	...	...	1	1	1	1	...	...	...	...	...	...	1	...	...	...		...	...	...	2	2	1	...	2	4	3	3	1	1	3	1	...	1	2	3	...	...	1	1	...	1	1	1	41
		5 yrs. & upwds.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Phthisis	Under 5 yrs.	1	...	1	...	...	1	...	...	...	...	...	...	2	...	1	1	...	1	...	...	...	1	...	...	...	...	1	...	1	1	1	...	...	...	2	1	...	1	...	...	...	1	...	...	...	...	1	...	1	...	...	1	21
		5 yrs. & upwds.	3	1	1	2	1	2	...	3	2	2	2	1	1	1	1	1	...	1	1	1	1	...	1	2	1	2	...	...	2	3	...	...	...	1	...	3	4	...	...	...	...	1	...	3	...	...	...	2	...	2	2	1	58
	Respiratory Diseases	Under 5 yrs.	9	9	4	4	4	2	4	3	4	4	1	7	6	4	7	3	2	2	2	3	1	2	1	...	1	1	...	...	1	...	1	2	3	...	1	2	1	1	2	3	2	1	2	6	2	1	2	2	...	2	3	1	131
		5 yrs. & upwds.	4	13	7	4	3	5	1	3	3	3	5	1	3	2	2	4	1	3	7	3	6	2	...	3	1	1	...	...	...	2	1	2	1	...	2	...	1		1	1	3	3	2	2	4	...	3	2	3	3	2	3	131
	All Causes	Under 5 yrs.	15	22	10	10	7	7	9	12	10	10	12	11	15	14	11	9	10	8	5	9	14	7	9	7	3	4	4	4	5	7	4	2	9	10	9	8	5	10	12	7	5	4	7	12	5	7	7	5	6	9	6	9	438
		60 yrs. & upwds.	2	13	6	6	3	5	1	2	8	6	8	1	7	3	3	2	2	3	8	3	4	2	2	4	1	2	4	3	1	2	2	3	4	5	4	3	2	1	1	2	3	5	2	6	...	...	4	2	3	9	4	6	188
		All Ages	24	46	23	26	17	19	15	25	25	22	30	16	24	21	16	19	15	19	23	18	29	14	15	17	8	14	13	9	14	18	9	10	21	18	14	16	12	12	18	13	12	16	11	28	9	13	14	11	15	23	16	19	924
WEST SUB-DISTRICT	Measles	Under 5 yrs.	...	1	1	...	1	...	...	2	...	...	1	...	2	3	1	...	...	...	1	1	1	1	...	1	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	19
		5 yrs. & upwds.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
	Scarlet Fever	Under 5 yrs.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1
		5 yrs. & upwds.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Whooping Cough	Under 5 yrs.	...	...	2	1	1	3	...	...	4	1	3	2	2	3	...	3	...	1	...	1	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	1	...	...		...	...	...	1	...	...	...	...	...	...	...	...	31
		5 yrs. & upwds.	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
	Diphtheria	Under 5 yrs.	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
		5 yrs. & upwds.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
	Typhoid Fever	Under 5 yrs.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
		5 yrs. & upwds.	1	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	1	...	10
	Diarrhœal Diseases	Under 5 yrs.	...	1	1	1	...	...	...	...	...	1	...	...	...	...	...	1	...	1	...	1	...	...	...	...	...	1	...	...	...	...	1	1	...	1	4	3	...	2	2	2	...	...	...	2	...	...	...	...	...	...	...	...	26
		5 yrs. & upwds.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Phthisis	Under 5 yrs.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
		5 yrs. & upwds.	3	1	2	2	1	2	1	...	...	2	2	2	2	...	1	2	2	2	1	1	1	...	1	2	1	2	1	1	1	1	...	1	1	2	3	...	1	...	2	1	...	2	...	2	1	1	1	2	1	...	...	2	63
	Respiratory Diseases	Under 5 yrs.	2	1	8	2	4	2	...	1	1	7	3	3	1	2	...	6	1	...	1	1	1	1	...	...	1	2	1	...	1	1	...	...	2	3	...	1	1	...	1	...	2	1	2	2	...	...	5	2	...	1	1	...	78
		5 yrs. & upwds.	6	6	8	6	5	2	1	1	2	3	1	1	1	2	1	1	5	...	2	1	...	2	1	...	...	1	1	2	1	...	...		...	1	3	...	1	1	3	4	1	1	...	1	1	2	1	1	3	2	1	6	96
	All Causes	Under 5 yrs.	4	9	17	7	12	7	3	7	7	12	14	8	9	10	4	14	5	3	7	6	3	5	5	3	5	8	9	7	8	3	3	2	5	4	8	4	7	6	5	3	10	5	6	7	3	...	8	3	2	2	4	1	319
		60 yrs. & upwds.	10	8	10	8	9	5	3	3	4	6	1	4	1	6	4	4	4	4	7	4	3	4	3	3	...	6	4	4	1	3	...	2	2	5	3	3	3	...	2	7	...	3	3	2	4	...	2	7	4	8	4	5	205
		All Ages.	26	28	39	18	26	16	10	12	16	23	19	22	15	20	11	22	17	10	20	14	11	12	10	10	10	18	18	17	11	12	5	9	9	15	16	9	11	8	13	15	15	12	13	13	12	5	17	12	13	16	12	18	781

TABLE No. 5.—Quarterly Births and Deaths during 1892.

	Quarters	East Sub-District, 39,093.					West Sub-District, 44,460.					Borough, 83,521.				
		1st	2nd	3rd	4th	Year	1st	2nd	3rd	4th	Year	1st	2nd	3rd	4th	Year
BIRTHS.	Males	192	195	168	209	764	161	168	171	164	664	353	363	339	373	1428
	Females	155	185	207	182	729	154	171	174	149	648	309	356	381	331	1377
	Total	347	380	375	391	1493	315	339	354	313	1312	662	719	720	704	2805
	Rate	35·6	39·1	38·5	40·1	38·3	28·4	30·3	31·1	28·2	29·6	31·8	34·5	34·6	33·8	33·6
DEATHS.	Males	158	128	102	121	509	138	91	80	85	394	296	219	182	206	903
	Females	154	100	82	79	415	132	94	73	88	387	286	194	155	167	802
	Total	312	228	184	200	924	270	185	153	173	781	582	413	337	373	1705
	Rate	32·0	23·4	18·8	20·5	23·7	24·3	16·7	13·8	15·6	17·6	27·9	19·8	16·1	17·9	20·4
	60 years and upwards ...	68	39	35	46	188	72	52	32	49	205	140	91	67	95	393
	Under 1 year...	79	63	61	70	273	64	44	59	42	209	143	107	120	112	482
	1—5 years	71	47	28	19	165	52	34	12	12	110	123	81	40	31	275
	Zymotics	54	31	25	15	125	38	28	20	9	95	94	59	45	24	220
	Rate	5.5	3·1	2·5	1·5	3·2	3·4	2·5	1·8	0·8	2·1	4·4	2·8	2·1	1·1	2·6
	Measles	13	6	1	1	21	8	10	2	...	20	21	16	3	1	41
	Scarlet Fever	1	...	...	1	2	...	...	...	1	1	1	...	...	2	3
	Whooping Cough	27	17	2	2	48	20	10	1	1	32	47	27	3	3	80
	Diphtheria	...	2	...	...	2	..	1	1	...	2	...	3	1	...	4
	Typhoid Fever	...	3	2	...	5	1	4	3	3	11	1	7	5	3	16
	Influenza	3	...	...	...	3	5	...	...	...	5	8	...	...	...	8
	Diarrhœa	4	2	18	9	33	3	2	13	4	22	7	4	31	13	55
	Phthisis	26	17	21	15	79	20	16	14	14	64	46	33	35	29	143
	Respiratory Diseases... ...	116	64	24	58	262	78	32	24	40	174	194	96	48	98	436
	Uncertified	2	4	3	2	11	7	1	1	2	11	9	5	4	4	22
	Inquests	15	21	15	14	65	9	6	8	10	33	24	27	23	24	98
Deaths in Public Institutions in the East Sub-District.	Hospital											44	36	28	36	144
	Workhouse											55	33	41	35	164
	From Outside the Borough											41	28	25	31	125
	From the West Sub-District											19	13	14	11	57
	No Home											5	2	3	1	11

TABLE No. 6—*Continued.*

	EAST SUB-DISTRICT.							WEST SUB-DISTRICT.						
	AGES						TOTALS	AGES						TOTALS
	0 to 1	1 to 5	5 to 25	25 to 60	60 to 75	75 and upwards		0 to 1	1 to 5	5 to 25	25 to 60	60 to 75	75 and upwards	
IV—Constitutional Diseases.														
Rheumatic Fever...	..	...	3	3	..	...	6	...	...	2	1	...	...	3
Rheumatism...	...	...	...	1	...	...	1	...	..	...	2	..	..	2
Malignant Disease	...	..	1	13	6	..	20	...	...	...	19	8	3	30
Tabes Mesenterica	6	3	1	...	...	..	10	3	2	..	1	...	...	6
Tubercular Meningitis...	..	1	1	...	...	...	2	2	2	1	...	...	...	5
Phthisis	7	14	9	42	7	...	79	...	1	21	39	3	...	64
Other Tuberculoses	...	1	2	4	...	...	7	1	1	2	...	...	...	4
Anæmia...	...	...	...	..	...	...	...	..	...	...	1	...	...	1
Glycosuria	...	1	...	1	...	...	2	...	..	..	...	...	...	..
Others	20	2	..	...	..	...	22	21	3	.	1	...	...	25
V—Developmental Diseases.														
Premature Birth	19	..	..	..	-	...	19	24	...	..	...	...	...	24
Congenital Malformations	3	..	..	...	...	...	3	2	...	...	...	...	...	2
Old Age...	...	...	..	3	20	36	59	...	...	...	...	18	42	60
VI—Local Diseases.														
1—NERVOUS SYSTEM.														
Inflammation of Brain or Membranes	6	7	3	1	...	...	17	4	9	1	2	...	...	16
Apoplexy, Softening of the Brain, Hemiplegia	...	...	..	10	13	1	24	..	...	...	9	11	4	24
Epilepsy	...	...	1	4	...	...	5	..	..	1	1	..	..	2
Convulsions	23	8	..	...	...	..	31	23	1	...	...	...	..	24
Disease of Spinal Cord, Paraplegia	...	..	...	1	..	.	1	...	...	...	...	1	1	2
Others	..	...	..	5	6	2	13	...	...	...	6	9	...	15
2—ORGANS OF SPECIAL SENSE (*e g.*, of Ear, Eye, Nose)	...		..	1	...	...	1	...	..	...	...	...	...	...
3—CIRCULATORY SYSTEM.														
Pericarditis	...	...	...	2	...	...	2	...	..	..	...	..	...	..
Diseases of Heart	..	...	2	27	12	2	43	..	...	7	32	25	4	68
Aneurism	..	...	...	...	1	...	1	...	..	...	...	..	..	..
Others	...	...	...	1	...	..	1	...	...	...	1	...	...	1
4—RESPIRATORY SYSTEM.														
Croup, Laryngitis	...	6	2	...	..	..	8	...	3	2	.	1	...	6
Emphysema Asthma	..	..	1	...	...	1	2	...	...	..	1	1	...	2
Bronchitis	37	19	4	31	37	9	137	21	14	..	16	29	13	93
Pneumonia	31	37	6	20	15	2	111	18	20	2	15	6	1	62
Pleurisy	..	...	...	1	...	...	1	..	1	1	1	...	...	3
Others	1	..	..	2	...	...	3	...	1	...	4	3	...	8
5—DIGESTIVE SYSTEM.														
Dentition	7	5		..	...	...	12	10	8	...	...	...	..	18
Sore Throat, Quinsy	...	1	..	..	..	...	1	..	...	...	...	...	1	1
Diseases of Stomach	1	..	...	2	...	...	3	1	..	...	1	..	...	2
Enteritis	7	1	...	...	...	1	9	2	1	1	..	1	...	5
Obstructive Diseases of Intestines	...	..	...	3	1	...	4	1	...	1	1	2	..	5

TABLE No. 6—Continued.

	EAST SUB-DISTRICT.							WEST SUB-DISTRICT.						
	AGES						TOTALS	AGES						TOTALS
	0 to 1	1 to 5	5 to 25	25 to 60	60 to 75	75 and upwards		0 to 1	1 to 5	5 to 25	25 to 60	60 to 75	75 and upwards	
5—Digestive System—*continued.*														
Peritonitis	2	...	4	1	...	...	7	...	...	1	3	2	..	6
Cirrhosis of Liver, Ascites ...	...	...	...	5	...	...	5	...	...	...	1	4	...	5
Jaundice and other Diseases of Liver	1	..	...	4	...	...	5	1	...	...	3	...	..	4
Others	1	1	...	..	...	...	2	1	...	...	..	...	...	1
6 - Lymphatic System.														
(*e.g.*, of Lyphatics and of Spleen)	..	...	..	...	...	..	..	.	...	.	1	...		1
8—Urinary System.														
Nephritis	...	...	3	7	2	...	12	...		3	10	3	...	16
Diseases of Bladder or of Prostrate	...	...	...	1	1	..	2	...	...	...	1	2	...	3
9—Reproductive System.														
A. *Of Organs of Generation.*														
Female Organs	...	...	..	3	...	...	3	...	..	...	1	..	...	1
B. *Of Parturition.*														
Puerperal Convulsions	...	...	..	...	...	...	..	...	...	1	..	...		1
Flooding	...	...	...	...	...	..	..	...	..	.	1	...	...	1
Others	...	...	...	3	...	...	3	...	...	2	3	.	.	5
10—Bones and Joints.														
Necrosis	...	...	...	1	...	...	1	...	...	1	...	...	...	1
11—Integumentary System.														
Disease of Integumentary System	...	...	..	1	..	...	1	1	...	...	...	..	..	1
VII—Violence.														
1—Accident or Negligence.														
Fractures and Contusions	...	2	2	6	2	...	12	...	..	1	4	...	...	5
Cut. Stab	..	..	..	1	..	...	1	..	...	..	..	...	...	..
Burn, Scald	...	1	2	1	2	..	6	...	3	..	..	...	...	3
Drowning	...	2	..	1	...	...	3	...	..	..	...	...	...	..
Suffocation	..	..	..	..	...	..	..	...	...	...	...	1	.	1
3—Suicide.														
Cut, Stab	...	..	...	1	...	...	1	...	...	..	1	1	...	2
Poison	...	...	1	...	..	..	1	...	...	...	1	..	..	1
Drowning	...	...	..	1	1	...	2	...	...	..	1	..	...	1
Hanging	..	..	..	..	1	...	1	...	...	..	2	...	1	3
VIII—Ill-defined and not Specified Causes.														
Debility, Atrophy, Inanition ..	34	..	..	1	1	...	36	33	...	...	...	...	...	33
Mortification	...	...	...	..	...	...	..	...	..	.	1	1	...	2
Abscess	3	...	..	1	..	...	4	...	...	...	...	..	...	..
Hæmorrhage...	..	..	..	1	...	...	1	..	...	...		...	..	...
Causes not Specified	13	..	3	8	3	2	29	2	..	.	1	1	...	4

TABLE No. 7.

TABLE OF DEATHS during the Year 1892, in the Sanitary District of WOLVERHAMPTON; classified according to DISEASES, AGES, AND LOCALITIES, *and the proportion of Deaths which occurred in Public Institutions.*

		MORTALITY FROM ALL CAUSES, AT SUBJOINED AGES.								MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN UNDER FIVE YEARS														
		At all Ages	Under 1 year	1 and under 5	5 and under 15	15 and under 25	25 and under 60	60 and upwards		2	3	6	9	11	12	13	14	15	17	18	19	20	21	22
												Fevers.												
										Scarlatina.	Diphtheria.	Enteric or Typhoid.	Puerperal.	Erysipelas.	Measles.	Whooping Cough.	Diarrhœa and Dysentery.	Rheumatic Fever.	Phthisis.	Bronchitis, Pneumonia, & Pleurisy.	Heart Disease.	Injuries.	All other Diseases.	TOTAL
(*a*)		(*b*)	(*c*)	(*d*)	(*e*)	(*f*)	(*g*)	(*h*)	(*i*)															
East Sub-District...		924	273	165	38	28	232	188	Under 5 yrs. ...	1	2	...	...	...	17	47	33	...	21	124	...	5	188	438
									5 yrs. and upwds	1	...	5	1	1	4	1	...	6	58	125	43	22	219	486
West Sub-District...		781	209	110	20	38	199	205	Under 5 yrs. ..	1	1	1	...	...	19	31	22	...	1	74	...	3	166	319
									5 yrs. and upwds	...	1	10	...	...	1	1	...	3	63	84	68	13	218	462
TOTAL IN BOROUGH...		1,705	482	275	58	66	431	393	Under 5 yrs. ...	2	3	1	...	...	36	78	55	...	22	198	...	8	409	757
									5 yrs. and upwds	1	1	15	1	1	5	2	...	9	121	209	111	35	437	948
Deaths in Institutions in the East Sub-District.	General Hospital	144	5	17	21	18	70	13	Under 5 yrs. ...	...	2	...	...	..	...	..	...	..	...	3	...	9	8	22
									5 yrs. and upwds	...	...	4	...	...	...	...	...	1	10	11	13	29	54	122
	Workhouse	164	13	5	...	4	42	100	Under 5 yrs.	...	..	...	..	...	..	...	...	...	3	1	...	...	14	18
									5 yrs. and upwds	...	...	...	...	...	...	...	1	...	14	16	17	..	98	146
	From outside the Borough	125	3	6	12	14	38	52	Under 5 yrs. ...	...	...	...	...	...	...	...	...	...	...	1	...	4	4	9
									5 yrs. and upwds	...	...	1	...	..	...	...	1	...	8	13	11	12	70	116
	Returned as "no home"	11	...	...	...	1	3	7	Under 5 yrs. ...	...	..	...	...	...	...	..	...	...	...	...	...	...	...	...
									5 yrs. and upwds	...	...	...	...	...	...	...	..	...	1	2	1	...	7	11
	From West Sub-District	57	4	5	3	3	29	13	Under 5 yrs. ...	...	...	...	...	...	...	...	...	...	...	1	...	2	6	9
									5 yrs. and upwds	...	...	2	...	...	...	...	...	...	4	2	7	6	27	48

TABLE No. 8.

Comparative Deaths and Death Rates for the past Twenty years.

Year.	East Sub-District.				West Sub-District.				Borough.				Estimated Populations.		
	Total.	Rate.	Zymotic.	Rate.	Total.	Rate.	Zymotic.	Rate.	Total.	Rate.	Zymotic.	Rate.	East.	West.	Borough.
1873	1,125	29·7	...	..	631	19·8	...	...	1,756	25·1	..	...	38,010	31,841	69,906
1874	1,048	27·6	...	...	627	19·3	...	..	1,675	23·6	...	...	38,087	32,487	70,636
1875	1,155	30·3	...	...	640	19·3	...	..	1,795	25·2	...	...	38,163	33,140	71,373
*1876	1,099	28·2	...	...	655	19·0	...	...	1,754	23·9	...	...	38,241	33,806	72,118
1877	1,157	30.2	...	...	611	17·7	...	...	1,768	24·3	...	...	38,318	34,485	72,871
1878	1,081	28·2	...	..	644	18·3	..	...	1,725	23·5	...	...	38,396	35,178	73,632
1879	1,093	28·5	...	...	608	17·0	...	...	1,701	22·9	...	...	38,474	35,884	74,402
1880	960	24·9	...	...	629	17·2	...	...	1,589	21·2	...	...	38,552	36,606	75,178
*1881	998	25·4	...	...	650	17·1	...	...	1,648	21·3	...	...	38,620	37,304	75,930
1882	1,056	27·4	...	...	657	17·3	...	...	1,713	22·4	...	..	38,663	37,904	76,591
1883	1,042	27·0	...	...	601	15·6	...	...	1,643	21·3	...	...	38,706	38,514	77,257
1884	1,158 954	29·9 24·7	221	5·7	699 753	17·9 19·3	115	2·9	1,857 1,707	23·9 21·9	336	4·3	38,749	39,133	77,930
*1885	1.012 813	25·6 20·6	102	2·5	658 720	16·2 17·8	74	1·8	1,670 1,533	20·9 19·2	176	2·2	38,792	39,762	78,607
1886	1,125 933	29·0 24·1	182	4·7	697 746	17·3 18·5	156	3·8	1,822 1.679	23·0 21·2	338	4·2	38,835	40,402	79,291
1887	1,133 918	29·2 23·6	122	3·1	659 720	16·1 17·5	102	2·4	1,792 1,638	22·4 20·5	224	2·8	38,878	41,051	79,981
1888	1,005 812	25·8 20·9	95	2·4	707 768	17·0 18·5	121	2·9	1,712 1,580	21·2 19·6	216	2·6	38,920	41,712	80,677
1889	1,065 872	27·4 22·4	103	2·6	674 737	15·9 17·4	102	2·4	1,739 1,609	21·4 19·8	205	2·5	38,963	42,383	81,379
*1890	1,183 957	29·8 24·1	98	2·4	725 795	16·5 18·1	80	1·8	1,908 1,752	22·8 21·0	178	2·1	39,006	43,064	82,087
1891	1,214 1,010	31·1 25·9	120	3·0	822 888	18·8 20·3	122	2·7	2,036 1,898	24·6 23·0	242	2·9	39,050	43,757	82,801
1892	1,117 924	28·6 23·7	125	3·2	724 781	16·3 17·6	95	2·1	1,841 1,705	22·1 20·4	220	2·6	39,093	44,460	83,521

* These years contain 53 weeks.

For explanation see remarks at the end of the text.

TABLE No. 9—Eleven years' Annual Deaths, &c.

	1882	1883	1884	*1885	1886	1887	1888	1889	*1890	1891	1892	A.
Small Pox	4	7	5	...	...	...	...	...	...	...	...	1·6
Measles	65	..	98	1	111	31	39	40	32	25	41	44·2
Scarlet Fever	27	24	37	46	5	16	17	6	13	14	3	20·5
Whooping Cough	58	21	15	41	22	29	58	48	27	26	80	34·5
Diphtheria	1	4	6	10	10	7	10	7	4	5	4	6·4
Typhoid Fever	7	10	9	4	9	14	11	9	9	15	16	9·7
Diarrhœa	87	56	140	50	149	105	60	84	68	105	55	90·4
Phthisis and Respiratory ...	457	475	497	494	480	509	555	482	664	666	579	527·9
60 years and upwards ...	394	403	342	375	353	403	399	398	410	479	393	398·6
Under 1 year	433	419	506	388	489	468	442	479	477	530	482	463·1
Under 5 years	740	616	837	598	834	738	679	778	726	816	757	736·2
Under 1 year per 1000 Births ...	156	149	188	138	174	174	165	179	174	187	171	168·4
Total Deaths†	1634	1542	1734	1564	1701	1664	1595	1620	1772	1914	1716	1674·0
Rate per 1000	21·4	20·0	22·3	19·5	21·5	20·8	19·8	19·9	21·2	23·1	20·6	20·95
Zymotics	278	143	336	176	338	224	216	205	178	242	220	233·6
Rate per 1000	3·6	1·8	4·3	2·2	4·2	2·8	2·6	2·5	2·1	2·9	2·6	2·90
Births	2762	2804	2691	2806	2803	2675	2674	2666	2735	2820	2805	2743·6
Rate per 1000	36·1	36·4	34·6	35·1	35·4	33·5	33·2	32·8	32·8	34·1	33·6	34·40

* These years contain 53 weeks

† These include returns made as no home.

A—Annual Averages for the ten years preceding 1892.

TABLE No. 9a.—Eleven year's Quarterly Deaths.

	1882				1883				1884				1885			
Quarters ending	1/4	1/7	30/9	30/12	31/3	30/6	29/9	29/12	29/3	28/6	27/9	27/12	31/3	27/6	26/9	*2/1
Small Pox ...	—	—	1	3	1	2	1	3	3	1	—	1	—	—	—	—
Measles ...	18	41	2	4	—	—	—	—	11	66	20	1	1	—	—	—
Scarlet Fever...	9	9	5	4	4	11	3	6	6	7	20	4	17	14	9	6
Whooping C....	36	18	1	3	15	6	—	—	1	1	3	10	27	7	4	3
Diphtheria ...	—	1	—	—	4	—	—	—	3	—	2	1	5	—	1	4
Typhoid Fever	1	2	2	2	2	4	2	2	3	—	1	5	2	1	—	1
Diarrhœa ...	15	7	56	9	7	4	29	16	4	8	113	15	4	6	26	14
Phthisis and Respiratory	147	119	83	108	163	114	83	115	120	142	89	146	157	113	71	149
60 yrs. & upw.	110	89	96	99	148	100	66	89	87	89	77	89	122	70	78	105
Under 1 year...	120	115	127	71	109	93	118	99	91	113	184	118	85	106	83	114
Under 5 years	223	207	180	130	168	145	156	147	131	227	289	190	164	154	115	165
Total Deaths†	464	422	385	363	468	372	341	361	349	457	497	431	466	369	312	417
Rate per 1000	24·3	22·1	20·1	19·0	24·3	19·3	17·7	18·7	17·9	23·5	25·5	22·1	23·7	18·8	15·9	19·7
Zymotics ...	82	82	81	33	37	33	41	32	37	91	163	45	64	31	45	36
Rate per 1000	4·2	4·2	4·2	1·7	1·9	1·7	2·1	1·6	1·9	4·6	8·3	2·3	3·2	1·5	2·2	1·7
Estimated Population	76,591				77,257				77,930				78,607			

	1886				1887				1888				1889			
Quarters ending	3/4	3/7	2/10	1/1	2/4	2/7	30/9	31/12	31/3	30/6	29/9	29/12	30/3	29/6	28/9	28/12
Small Pox ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Measles ...	—	—	8	103	19	4	7	1	9	6	5	19	10	11	11	8
Scarlet Fever...	1	3	1	—	2	1	5	8	8	4	4	1	2	—	1	3
Whooping C....	2	8	6	6	6	1	7	15	29	14	11	4	4	14	6	24
Diphtheria ...	6	3	—	1	—	3	1	3	4	4	1	1	—	2	2	3
Typhoid Fever	3	1	1	4	1	2	5	6	2	5	2	2	1	2	4	2
Diarrhœa ...	6	10	98	35	6	4	90	5	4	7	30	19	3	8	56	17
Phthisis and Respiratory	159	100	76	145	169	119	75	146	184	134	94	143	165	113	76	128
60 yrs. & upw.	123	81	63	86	131	122	62	88	127	98	77	97	124	82	87	105
Under 1 year...	106	95	148	140	98	95	171	104	118	102	111	111	103	109	138	129
Under 5 years	162	146	221	305	181	134	235	188	191	165	148	175	170	180	212	216
Total Deaths†	446	342	382	531	447	394	417	406	478	395	335	387	433	378	386	423
Rate per 1000	22·5	17·3	19·3	26·8	22·4	19·7	20·9	20·3	23·7	19·6	16·6	19·2	21·3	18·6	19·0	20·8
Zymotics ...	27	32	121	158	39	20	122	43	61	45	56	54	21	42	82	60
Rate per 1000	1·3	1·6	6·1	7·9	1·9	1·0	6·1	2·1	3·0	2·2	2·7	2·6	1·0	2·0	4·0	2·9
Estimated Population	79,291				79,981				80,677				81,379			

	1890				1891				1892			
Quarters ending	29/3	28/6	27/9	*3/1/91	4/4	4/7	3/10	2/1/92	2/4	2/7	1/10	31/12
Small Pox ...	—	—	—	—	—	—	—	—	—	—	—	—
Measles ...	3	10	5	14	5	—	—	20	21	16	3	1
Scarlet Fever...	4	2	3	4	2	2	2	8	1	—	—	2
Whooping C....	17	8	—	2	—	—	5	21	47	27	3	3
Diphtheria ...	3	—	—	1	1	2	1	1	—	3	1	—
Typhoid Fever	2	3	1	3	5	2	5	3	1	7	5	3
Diarrhœa ...	7	3	42	16	5	7	66	27	7	4	31	13
Phthisis and Respiratory	244	138	106	176	177	203	83	203	240	129	83	127
60 yrs. & upw.	140	89	78	133	135	167	72	105	140	91	67	95
Under 1 year...	116	79	147	135	93	119	159	159	143	107	120	112
Under 5 years	198	136	190	202	140	173	208	295	266	188	160	143
Total Deaths†	545	365	392	470	417	536	400	561	587	415	340	374
Rate per 1000	26·2	17·5	18·8	21·3	20·2	25·9	19·3	27·1	28·2	19·9	16·3	17·9
Zymotics ...	44	30	58	46	24	41	88	89	92	59	45	24
Rate per 1000	2·1	1·4	2·7	2·0	1·1	1·9	4·2	4·3	4·4	2·8	2·1	1·1
Estimated Population	82,087				82,081				83,521			

* These quarters contain 14 weeks.

† These include returns made as "no home."

TABLE No. 10

DEATH RATES, ETC., IN THE 33 GREAT TOWNS IN 1892.

	Population estimated to middle of 1892	Births in 1892.	Corrected Death Rate.	Mortality Figure.	Recorded Death Rates.							Deaths under 1 year to a 1000 Births.
					Principal Zymotic Diseases	Measles	Scarlet Fever.	Diphtheria.	Whooping Cough.	Fever.	Diarrhœa	
England and Wales ...			19·01	1000								
England and Wales *less* 33 Towns			17·81	937								
33 Towns	10,188,449	31·9	22·35	1175	2·64	0·69	0·25	0·27	0·57	0·15	0·70	164
London	4,263,294	30·9	21·99	1157	2·82	0·80	0·28	0·44	0·58	0·11	0·60	155
West Ham	217,113	37·0	20·07	1056	2·91	0·92	0·32	0·35	0·47	0·10	0·75	153
Croydon	106,152	26·5	16·48	867	1·89	0·55	0·07	0·35	0·55	0·05	0·31	123
Brighton	116,424	25·5	19·43	1022	2·14	1·03	0·07	0·20	0·19	0·07	0·58	151
Portsmouth	163,667	28·0	18·90	994	1·87	0·25	0·10	0·17	0·54	0·26	0·55	156
Plymouth	85,610	29·1	18·26	961	1·70	0·21	0·52	0·09	0·05	0·21	0·61	137
Bristol	223,592	29·6	20·33	1069	2·07	0·46	0·20	0·14	0·69	0·08	0·50	147
Cardiff	136,181	35·3	21·02	1106	2·89	0·44	0·62	0·26	0·32	0·19	1·05	163
Swansea	92,344	35·2	22·30	1173	2·52	0·31	0·59	0·11	0·79	0·26	0·46	175
WOLVERHAMPTON ...	**83,521**	**33·7**	**22·54**	**1186**	**2·34**	**0·48**	**0·04**	**0·05**	**0·94**	**0·20**	**0·63**	**172**
Birmingham	483,526	33·3	22·53	1185	2·52	0·75	0·14	0·15	0·57	0·08	0·83	166
Norwich	102,736	30·5	19·16	1008	1·58	0·19	0·06	0·16	0·36	0·20	0·61	182
Leicester	180,066	32·2	19·71	1037	2·52	0·67	0·22	0·07	0·29	0·10	1·14	196
Nottingham	215,395	29·4	20·14	1059	2·27	0·55	0·20	0·10	0·56	0·15	0·71	167
Derby	95,908	31·1	20·20	1063	1·86	0·20	0·07	0·21	0·64	0·08	0·66	173
Birkenhead	101,264	33·4	21·55	1134	2·27	0·63	0·10	0·08	0·61	0·26	0·58	168
Liverpool	513,790	34·7	27·44	1443	2·87	0·89	0·26	0·11	0·52	0·26	0·80	181
Bolton	116,261	32·7	25·80	1357	3·10	0·36	0·26	0·11	0·93	0·19	1·25	185
Manchester	510,998	33·7	26·96	1418	2·97	0·73	0·26	0·20	0·72	0·25	0·81	179
Salford	201,058	35·9	27·69	1457	4·58	1·53	0·41	0·26	0·97	0·41	0·99	185
Oldham	134,221	29·1	25·22	1327	2·61	1·05	0·31	0·12	0·51	0·13	0·39	177
Burnley	90,589	34·2	23·43	1233	1·78	0·14	0·07	0·10	0·61	0·20	0·66	192
Blackburn	122,238	31·9	24·33	1280	2·21	0·05	0·12	0·01	0·80	0·29	0·94	198
Preston	109,038	34·3	26·52	1395	3·87	0·06	0·68	0·14	0·86	0·33	1·80	216
Huddersfield	96,599	23·0	20·99	1104	1·48	0·69	0·19	0·07	0·29	0·06	0·17	150
Halifax	84,097	25·9	21·72	1143	1·65	0·80	0·10	0·20	0·11	0·10	0·14	160
Bradford	219,262	27·2	20·56	1082	1·66	0·30	0·20	0·07	0·43	0·09	0·55	155
Leeds	375,540	33·5	21·90	1152	2·17	0·19	0·20	0·08	0·42	0·17	1·09	169
Sheffield	329,585	35·3	23·16	1218	3·06	0·73	0·19	0·24	0·71	0·12	1·05	171
Hull	204,750	35·0	20·64	1086	2·63	0·71	0·14	0·06	0·56	0·17	0·99	166
Sunderland	132,839	37·1	21·97	1156	2·93	0·91	0·14	0·07	0·74	0·43	0·64	157
Gateshead	88,588	35·3	20·31	1068	1·80	0·34	0·25	0·06	0·26	0·10	0·79	154
Newcastle	192,205	34·3	21·46	1129	1·64	0·33	0·14	0·22	0·43	0·07	0·44	151

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